

eastern Lower Michigan. On the 4th the lowest temperature of the month was reported at stations on Lake Erie, and at New Orleans, La., and Meridian, Miss. During the 5th and 6th this cool wave was attended by the lowest temperature of the month at points along the south Atlantic coast.

From the 7th to 9th the lowest temperature of the month occurred on the north Pacific coast, and on the 10th and 11th a cool wave occupied southern California and Arizona. On the 11th the lowest temperature of the month was noted over the eastern lower lake region, generally in the middle Atlantic and New England states, and at Atlanta, Ga. By the 12th this cool wave had extended over Virginia and North Carolina, attended by the lowest temperature of the month in those states. In Montana and North Dakota the minimum temperature for the month was noted on the 22d and 24th, respectively.

FROST.

On the 11th frost was general in the valleys of northern and

southern Maine and along the eastern Massachusetts coast. At Hyannis and New Bedford, Mass., heavy frost was reported. On the 29th frost was reported at Buckhannon, W. Va. Frost was reported at Wheeler, Ohio, on the 15th. In the Lake region frost was noted in Lower Michigan on the 28th to 30th, and in Upper Michigan on the 3d. In northern Wisconsin frost occurred on the 1st, 2d, 3d, 8th, 29th, and 30th. Frost was noted at points in North Dakota on the 8th, 14th, 16th, 17th, and 24th, and on the 30th it was reported from North Dakota over northwestern Iowa. Light frost was noted about Yankton, S. Dak., on the 2d, and near Valentine, Nebr., on the 1st and 17th. On the 1st frost was noted generally in the middle and southern Rocky Mountain regions, and at Fort Stanton, N. Mex., heavy frost nipped tender vegetation. At Havre, Mont., frost was reported on the 13th, and at Olympia, Wash., on the 21st. Frost was reported at intervals during the month in the plateau region, and in the mountains of California, Oregon, and Washington.

PRECIPITATION (expressed in inches and hundredths).

The distribution of precipitation over the United States and Canada for June, 1892, as determined from the reports of about 2,000 stations, is exhibited on Chart III. In the table of miscellaneous meteorological data the total precipitation and the departure from the normal are given for regular stations of the Weather Bureau. The figures opposite the names of the geographical districts in the columns for precipitation and departure from the normal show, respectively, the averages for the several districts. The normal for any district may be found by adding the departure to the current mean when the precipitation is below the normal and subtracting when above.

In June the monthly precipitation is usually greatest over central and east portions of the Florida Peninsula, where it exceeds 8.00; it exceeds 6.00 along the south Atlantic and middle Gulf coasts, and in areas in Illinois and Iowa. Over the greater part of the country from the eastern Rocky Mountain slope to the Atlantic coast south of the 40th parallel the normal precipitation for June is 4.00 to 6.00. Over the plateau regions, and in California south of the 40th parallel, the precipitation for June is generally less than 1.00.

In June, 1892, the monthly precipitation exceeded 10.00 in adjoining parts of northern Illinois, northeastern Iowa, and southern Wisconsin, over a great part of the Florida Peninsula and adjoining parts of southern Louisiana and eastern Texas, in small areas in the southern Lake region, eastern North Carolina, southeastern South Carolina, and in adjoining parts of northwestern South Carolina and northeastern Georgia. On the south New England coast, in eastern Maryland, Delaware, and extreme southeastern Pennsylvania, and over a great part of the Lake Superior region, less than 2.00 was reported. The monthly precipitation was also less than 2.00 on the middle-eastern slope of the Rocky Mountains and thence to the middle Missouri valley, generally over the Rocky Mountain and plateau regions, and on the Pacific coast. Over the greater part of Arizona and southeastern California no precipitation was reported.

DEPARTURES FROM NORMAL PRECIPITATION.

The monthly precipitation was in excess of the average for June from the extreme upper Mississippi valley over the Lake region, and the interior of Pennsylvania, New York, and New England; it was also in excess from the northeast slope of the Rocky Mountains to eastern Texas. In the Missouri, Red River of the North, lower Ohio, and middle and lower Mississippi valleys, and in the Pacific coast states, the monthly precipitation was deficient. The greatest excess, 8.90, was noted at Duluth, Minn. The excess was 6.00, or more, from east-central Iowa over northern Illinois, and at Palestine, Tex., and

it was 2.00 to 4.00 in the lower lake region, upper Saint Lawrence valley, extreme upper Mississippi valley, and at Helena, Mont. The most marked deficiency, 4.40, was noted at Omaha, Nebr., and the deficiency was more than 2.00 from the middle Mississippi valley over southern Nebraska and northern Kansas, at Hatteras, N. C., Pensacola, Fla., Mobile, Ala., Little Rock, Ark., in Manitoba, and at Marquette, Mich., and Medicine Hat, N. W. T.

Considered by districts the average percentage of the normal in districts where the precipitation was in excess was about as follows: lower lake region, 188; Key West, Fla., 149; upper lake region, 143; west Gulf states, 125; upper Mississippi valley, 124; northeast slope of the Rocky Mountains, 123; middle plateau region, 117; south Atlantic states, 113. In districts where the precipitation was deficient the percentage of the normal was about as follows: middle Pacific coast, 23; southeast slope of the Rocky Mountains, 39; northern plateau, 53; north Pacific coast, 60; Missouri Valley and southern plateau, 70; middle-eastern slope of the Rocky Mountains, 71; extreme northwest, 74; east Gulf states, 78; New England, 84. In the middle Atlantic states, the Ohio Valley and Tennessee, and on the south Pacific coast the monthly precipitation averaged about normal.

DEVIATIONS FROM AVERAGE PRECIPITATION.

The following table shows for certain stations, as reported by voluntary observers, (1) the average precipitation for June for a series of years; (2) the length of record during which the observations have been taken and from which the average has been computed; (3) the total precipitation for June, 1892; (4) the departure of the current month from the average; (5) and the extremes for June during the period of observation and the years of occurrence:

State and station.	(1) Average for the month of June.	(2) Length of record.	(3) Total for June, 1892.	(4) Departure from average.	(5) Extremes for June.			
					Greatest.		Least.	
					Am't.	Year.	Am't.	Year.
<i>Arizona.</i>	<i>Inches.</i>	<i>Years.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>		<i>Inches.</i>	
Fort Apache.....	0.67	16	0.15	— 0.52	3.27	1882	0.00	1877, 1890
Fort Mohave.....	0.05	21	0.00	— 0.05	1.00	1872	0.00	•
Whipple Barracks.....	0.17	21	0.00	— 0.17	1.24	1872	0.00	†
<i>Arkansas.</i>								
Lead Hill.....	4.85	10	5.33	+ 0.48	7.14	1882	2.18	1890
<i>California.</i>								
Fort Bidwell.....	1.07	21	1.46	+ 0.39	4.29	1884	T.	1883
Riverside.....	0.07	11	.....	.....	0.52	1884	0.00	•
<i>Colorado.</i>								
Las Animas.....	1.74	9	1.06	— 0.68	2.79	1884	0.05	1890
<i>Florida.</i>								
Merritts Island.....	7.49	14	5.83	— 1.66	14.28	1889	3.32	1878

Deviations from average precipitation—Continued.

State and station.	(1) Average for the month of June.	(2) Length of record.	(3) Total for June, 1892.	(4) Departure from average.	(5) Extremes for June.			
					Greatest.		Least.	
					Am't.	Year.	Am't.	Year.
<i>Georgia.</i>	<i>Inches.</i>	<i>Years</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>		<i>Inches.</i>	
Forsyth	4.67	18	5.55	+ 0.88	11.14	1886	1.45	1879
<i>Idaho.</i>								
Boise Barracks	0.95	18	1.22	+ 0.27	3.41	1884	0.11	1880
Fort Sherman	1.50	8	0.55	- 0.95	2.11	1885	0.16	1882
<i>Illinois.</i>								
Centralia	5.94	12	3.08	- 2.86	9.66	1882	2.34	1887
<i>Indiana.</i>								
La Fayette	4.48	10	3.49	- 0.99	9.10	1882	1.97	1887
<i>Indian Territory.</i>								
Fort Supply	3.10	12	0.65	- 2.45	5.44	1885	0.40	1874
<i>Iowa.</i>								
Cresco	5.15	19	10.84	+ 5.69	11.71	1890	2.46	1887
<i>Kansas.</i>								
Independence	5.31	20	2.70	- 2.61	11.26	1881	2.05	1875
Salina	5.98	9	0.92	- 3.06	6.11	1883	0.92	1892
<i>Louisiana.</i>								
Grand Coteau	5.66	9	10.59	+ 4.73	11.31	1886	2.50	1884
<i>Maine.</i>								
Orono	3.40	22	5.96	+ 2.56	5.96	1892	0.73	1880
<i>Maryland.</i>								
Cumberland	3.59	20	10.08	+ 6.49	10.08	1892	0.86	1885
<i>Michigan.</i>								
Kalamazoo	4.86	16	6.90	+ 3.04	8.10	1883	1.78	1878
<i>Missouri.</i>								
Sedalia	5.59	13	5.50	- 0.09	9.24	1891	1.11	1890
<i>Montana.</i>								
Fort Custer	2.82	12	.....	.....	5.02	1891	0.90	1889
<i>Nebraska.</i>								
Fort Robinson	2.01	8	11.91	+ 9.90	11.91	1892	0.60	1890
Genoa (near)	4.48	16	1.50	- 2.98	8.48	1891	1.50	1892
<i>Nevada.</i>								
Brown	0.24	21	0.18	- 0.06	1.13	1878	0.00	†
Carson City	0.37	14	1.46	+ 1.09	1.97	1884	T.	1876, 1890
<i>New Hampshire.</i>								
Hanover	3.45	20	7.42	+ 3.97	7.42	1892	1.74	1873
<i>New Mexico.</i>								
Deming	0.36	10	0.90	+ 0.54	1.33	1885	0.00	†
Fort Wingate	0.67	20	T.	- 0.67	3.15	1873	0.00	†
<i>New York.</i>								
Cooperstown	4.21	21	4.86	+ 0.65	7.31	1872	1.94	1873
Plattsburgh Barracks ..	2.79	21	7.62	+ 4.83	7.62	1892	1.27	1881
<i>North Carolina.</i>								
Lenoir	4.12	20	8.20	+ 4.08	10.30	1884	0.90	1881
<i>Oklahoma.</i>								
Fort Reno	4.90	9	2.62	- 2.28	10.33	1885	0.28	1888
Fort Sill	3.92	20	2.60	- 1.32	8.16	1885	0.21	1881
<i>Oregon.</i>								
Bandon	1.79	14	0.70	- 1.09	6.11	1881	0.12	1883
Eola	1.30	21	0.87	- 0.49	5.06	1888	0.05	1883
<i>Pennsylvania.</i>								
Dyberry	2.78	21	6.07	+ 3.29	6.07	1892	1.13	1873
Grampian Hills	4.48	14	4.97	+ 0.49	9.55	1884	2.30	1888
Wellsborough	6.83	13	8.84	+ 2.01	17.47	1881	2.01	1886
<i>South Carolina.</i>								
Statesburg	3.43	11	5.91	+ 2.48	5.91	1892	1.38	1881
<i>South Dakota.</i>								
Fort Sully	3.32	21	3.62	+ 0.30	6.41	1890	1.50	1871
<i>Texas.</i>								
Austin	3.12	19	4.37	+ 1.25	8.32	1872	0.00	1881
Silver Falls	2.52	5	2.00	- 0.52	3.84	1890	0.98	1887
<i>Utah.</i>								
Terrace	0.23	19	0.15	- 0.08	1.23	1886	0.00	†
<i>Vermont.</i>								
Stratford	3.39	19	7.86	+ 4.47	7.86	1892	1.60	1884, 1885
<i>Virginia.</i>								
Dale Enterprise	5.64	12	5.46	- 0.18	11.00	1884	1.73	1882
<i>Washington.</i>								
Fort Townsend	1.52	17	0.37	- 1.15	4.10	1875	0.24	1886
<i>West Virginia.</i>								
Parkersburg	3.68	7	3.66	- 0.02	4.84	1890	1.30	1885
<i>Wisconsin.</i>								
Embarras	5.63	21	7.20	+ 1.57	11.40	1880	1.75	1874
Madison	4.33	19	7.60	+ 3.27	9.31	1880	1.08	1886
<i>Wyoming.</i>								
Fort Washakie	1.13	8	0.71	- 0.42	2.98	1889	T.	1881

* Generally.

† Frequently.

PRECIPITATION, JANUARY TO JUNE, 1892.

For the period January to June, 1892, inclusive, the precipitation averaged about normal in the middle Atlantic and west Gulf states, the Ohio Valley and Tennessee, the extreme northwest, over the northern plateau region, and on the south Pacific coast. In the upper Mississippi valley and over the southern plateau region the precipitation was about one-half greater, and in the Lake region, the Missouri Valley, on the northeast and middle-eastern slopes of the Rocky Mountains, and over the middle plateau region it was one-tenth to three-tenths greater than usual. In New England, the south Atlantic and east Gulf states, at Key West, Fla., on the southeast slope of the Rocky Mountains, and on the northern and

middle Pacific coasts the precipitation was eight-tenths to nine-tenths of the usual amount for the period named.

YEARS OF GREATEST PRECIPITATION FOR JUNE.

At Orono, Me., Hanover, N. H., Stratford, Vt., Plattsburgh Barracks, Rochester, and Buffalo, N. Y., Dyberry, Pa., Cumberland, Md., Statesburg, S. C., Detroit, Mich., Chicago, Ill., Davenport and Dubuque, Iowa, Palestine, Tex., Fort Robinson, Nebr., and Helena, Mont., the precipitation for the current month was the greatest on record for June. The greatest precipitation for June was noted over a great part of the Dakotas in 1890; from west-central Mississippi over central Texas in 1889; on the Pacific coast north of the 40th parallel in 1888; in Florida and the lower Rio Grande valley in 1887; in the interior of the south Atlantic states in 1886; in California south of the 40th parallel in 1884; in the lower Missouri valley in 1883; in the southern plateau region and a part of the upper Mississippi valley in 1882; on the southeast New England coast and from southern Lower Michigan over western Pennsylvania in 1881; over northern New York in 1879; in Upper Michigan in 1878; and along the south Atlantic coast in 1876.

YEARS OF LEAST PRECIPITATION FOR JUNE.

At Salina, Kans., Genoa, Nebr., Fort Stanton, N. Mex., and Port Angeles, Wash., the precipitation for the current month was the least ever reported for June. The least precipitation for June was noted from eastern Washington over Montana and in the Red River of the North Valley in 1889; and along the west Gulf coast and on the southeast slope of the Rocky Mountains in 1881.

EXCESSIVE PRECIPITATION.

The following tables show, by states, the number of stations reporting monthly precipitation to equal or exceed 10.00; precipitation to equal or exceed 2.50 in 24 hours; and precipitation to equal or exceed 1.00 in 1 hour in June, 1892:

Monthly precipitation to equal or exceed 10.00.

State.	Number of stations.	State.	Number of stations.
Louisiana	12	South Carolina	3
Illinois	11	Michigan	2
Florida	8	Texas	2
Iowa	7	Indiana	1
North Carolina	5	Maryland	1
Wisconsin	5	Minnesota	1
Georgia	5	New York	1
Pennsylvania	3	Vermont	1

Precipitation to equal or exceed 2.50 in 24 hours.

State.	Number of stations.	Dates.	State.	Number of stations.	Dates.
Louisiana	19	1-2, 2, 15-16, 16, 17-18, 22, 22-23, 23, 25, 26, 27.	Georgia	6	2-3, 18-19, 22-23, 26, 26-27, 27.
Illinois	18	6, 14, 17-18, 18, 19, 21, 22-23, 22-24, 23, 23-24.	Missouri	6	1, 29.
Iowa	15	1, 1-2, 13, 15, 16, 22, 22-23.	North Dakota	6	5, 5-6, 10, 11.
Texas	15	*1, 6, 18, 22, 22-24, 23, 23-24, 24, 24-25, 25.	Michigan	4	2, 2-3, 3, 27.
Florida	11	1, 2, 3, 4-5, 5, 8, 9, 10, 20-21, 22, 26, 26-27, 27, 29.	Mississippi	4	1, 27.
Wisconsin	11	6, 7, 7-8, 15, 15-16, 16, 26-27, 27.	South Dakota	4	5, 5-6, 9, 15-16.
Pennsylvania	10	1-2, 3, 4, 8, 9, 25, 27.	Tennessee	4	1, 2, 9, 20-21.
New York	9	2-3, 8, 8-9, 9, 27, 27-28, 28.	Ohio	3	2, 9, 18-19.
Minnesota	8	12, 15, 15-16, 16, 22.	South Carolina	3	4, 5, 9, 27-28.
North Carolina	8	2, 4, 18, 19, 20, 24, 25, 27-28.	West Virginia	3	7, 20, 30.
			Arkansas	2	21.
			Indiana	2	18, 23.
			Kansas	2	15, 16.
			Nebraska	2	4, 5, 15-16.
			Alabama	1	21-22.
			Kentucky	1	29-30.
			Maryland	1	4.
			Montana	1	10-11.
			New Hampshire	1	25.
			New Jersey	1	3.
			Oklahoma	1	29-30.
			Virginia	1	7.

* May 31-June 1.

Precipitation to equal or exceed 1.00 in 1 hour.

State.	Number of stations.	Dates.	State.	Number of stations.	Dates.
Pennsylvania	12	3, 4, 5, 9, 25, 27.	Kentucky	3	17, 22, 30.
Florida	11	1, 5, 9, 15, 17, 22, 23, 24, 26, 30.	Minnesota	3	5, 15.
Texas	11	6, 16, 18-19, 19, 24, 25, 26, 28.	North Dakota	3	9, 10, 14.
Georgia	9	2, 3, 5, 8, 24, 25.	Oklahoma	3	6, 24.
Alabama	7	2, 22, 24, 27, 30.	South Dakota	3	5, 9, 16.
Mississippi	6	7, 13, 16, 17, 19, 22, 23.	Wisconsin	3	7, 8, 16.
Iowa	6	3, 8, 20, 26.	Kansas	3	15, 16.
Missouri	5	13, 17, 18, 23.	Maryland	2	4, 27.
Illinois	5	5, 9, 22, 27.	Michigan	2	2, 18.
New York	4	1, 2, 14, 27.	New Hampshire	2	17, 26.
Louisiana	4	9, 18, 25.	Ohio	2	9, 30.
North Carolina	4	6, 9, 21, 24.	Virginia	2	7.
Tennessee	4	7, 17, 30.	West Virginia	2	7.
Arkansas	3		Indiana	1	21.
			New Jersey	1	30.
			South Carolina	1	17.
			Vermont	1	26.

Table of excessive precipitation, June, 1892.

State and station.	Monthly rainfall to inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall 1 inch, or more, in one hour.		
		Amt.	Day.	Amt.	Time.	Day.
<i>Alabama.</i>						
Auburn.....	Inches.	Inches.		Inches	h. m.	
Brewton.....				2.01	1 00	25
Daphne.....				1.38	1 00	25
Evergreen.....		3.64	21-22	2.15	2 00	27
Fort Deposit.....				2.05	1 20	24
Geneva.....				1.38	1 00	27
Oxanna.....				2.00	0 40	25
Walker Springs.....				1.50	1 10	24
<i>Arkansas.</i>						
Camden b.....				1.35	0 30	30
Fort Smith.....				1.50	1 00	17
Fulton.....		2.70	1	1.50	1 00	
Helena a.....		3.36	1	1.50	1 00	
Lead Hill.....				1.10	0 32	7
<i>Florida.</i>						
Archer.....	20.19	6.34	27	1.45	0 35	22
Avon Park.....				1.50	1 00	15
Do.....		2.60	26	2.60	1 30	26
Bristol.....		2.80	26			
Eustis.....				1.17	1 00	17
Federal Point.....				1.89	1 00	24
Fort Meade.....		3.05	22			
Do.....		2.65	29			
Homeland.....	10.37			1.54	0 50	23
Hypoluxo.....	23.25	3.20	2			
Do.....		3.00	5			
Do.....		3.88	8			
Do.....		3.64	10	1.26	0 40	30
Jupiter.....	14.76	3.00	4-5	1.75	1 00	5
Do.....				1.35	1 00	9
Mico.....	11.72					
Mullet Key.....				1.01	1 00	17
Myers.....	12.23	2.50	5			
Ocala.....	13.33	2.55	3			
Do.....		3.30	20-21			
Saint Andrews Bay.....		3.29	26-27			
Tampa.....	12.41			1.00	1 00	23
Do.....				1.05	0 55	26
Tarpon Springs.....				1.65	1 00	26
Titusville.....		2.78	1	2.15	1 25	1
Do.....		2.78	8-9			
<i>Georgia.</i>						
Americus.....				2.00	0 47	3
Atlanta.....		2.59	2-3	1.07	1 00	2
Blakely.....		2.54	27			
Darien.....				1.04	0 40	8
Forsyth.....				1.41	0 30	24
Fort Gaines.....				2.40	1 00	5
Gainesville.....	11.31			2.06	1 20	8
Griffin.....						
Lincolnton.....		2.75	27			
McArthur.....				2.00	1 50	25
Miller.....	11.25	2.57	22-23			
Do.....		3.32	26-27			
Poulan.....				1.68	1 00	3
Rome.....				1.89	1 00	3
Toccoa.....	13.93	2.64	2-3			
Do.....		3.25	18-19			
Waynesborough.....		2.80	26			
<i>Illinois.</i>						
Aurora a.....	12.83					
Aurora b.....	13.09	3.16	22-23			
Carlinville.....		2.56	17-18	2.38	1 15	17
Chicago.....	10.58	3.11	23-24	1.05	1 00	18
Do.....				1.60	1 00	23
Cockrell.....		3.55	22-23	2.25	1 45	23
Ellsworth.....		2.70	21			
Fort Sheridan.....	10.91	2.84	23			
Hennepin.....	10.01	2.60	14			
Jordans Grove.....		2.51	18			
La Grange.....	12.25	3.82	23	1.47	0 30	13
Lanark.....		3.27	22-24			

Table of excessive precipitation—Continued.

State and station.	Monthly rainfall to inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.		
		Amt.	Day.	Amt.	Time.	Day.
Illinois—Continued.						
Mascoutah	Inches.	Inches.		Inches.	h.	
Oswego	10.51	5.20	18			
Ottawa		2.83	22-23			
Pana		2.98	19	1.00	1 00	13
Peoria a		2.60	19			
Riley	11.21	3.11	22-23			
Rockford	14.16	2.62	6			
Sycamore	11.23	5.33	22-23			
Winnebago	10.29	2.66	23-24			
Indiana.						
Rushville				2.22	2 00	21
Terre Haute		2.52	18			
Valparaiso	10.73	3.04	23			
Iowa.						
Amara		3.76	1-2			
Ames b.		2.66	13			
Ames c.		2.70	13			
Blakeville		3.25	22			
Cedar Rapids		3.85	1-2			
Cresco	10.84	3.07	15			
Do.		2.51	22			
Davenport	10.79	4.36	22-23	1.15	0 50	7
Do.				1.18	0 55	13
Decorah	11.06			1.16	1 05	13
Dubuque	14.16			2.14	1 50	16
Do.		3.48	16	1.00	1 00	17
Do.				1.20	1 00	22
Do.		3.48	22-23	1.00	0 30	23
Fayette	11.63			1.67	1 30	22
Grand Meadow	11.91	2.58	22	2.00	1 00	22
Greenfield				1.07	0 39	19
Hopkinton	10.16	2.50	1			
Independence		3.40	22-23			
Larrabee				1.84	0 31	19
Mechanicsville		3.38	22			
Monticello		3.00	1			
Richland		3.01	1-2			
Kansas.						
Dodge City				1.19	0 37	16
Greensburg		3.19	15	3.19	3 00	15
McPherson		3.71	16			
Kentucky.						
Caddo				1.10	1 00	22
Edmonton				1.18	1 00	17
Harrodsburg		2.61	29-30	2.35	2 00	30
Louisiana.						
Abbeville	12.50	3.80	22			
Cameron	17.83	5.89	17-18			
Do.		5.57	22			
Do.		3.42	26			
Donaldsonville		2.62	2			
Franklin	13.87	5.20	27	5.20	5 00	27
Grand Coteau	10.59					
Homer		4.08	25			
Houma		3.00	15-16			
Jeanerette	*14.36	5.35	16			
Do.		3.80	22			
La Fayette	13.97	3.90	16	1.07	0 30	14
Lake Charles	13.50	3.50	17-18			
Lawrence		2.99	26			
Marksville		3.05	1			
Minden		5.02	23			
New Iberia	10.09	4.77	22			
Opelousas	11.41			1.85	1 00	1
Paincourtville		2.80	1-2			
Plaquemine	11.84	3.30	1			
Do.		2.65	22			
Rayne	12.13	4.36	22-23			
Shell Beach		2.75	22			
Schriever	11.30	3.40	26	1.83	1 00	2
Wallace		2.79	22			
Maryland.						
Baltimore				1.23	1 00	27
Cumberland a	10.08	4.64	4	4.64	1 00	4
Michigan.						
Albion				1.10	1 05	13
Allegan	10.25					
Berlin		2.79	3			
Detroit		3.39	2-3	2.25	1 04	2
Grand Rapids	13.22					
Harbor Springs		2.58	27			
Rawsonville		2.85	2			
Minnesota.						
Alma City		3.09	15			
Bingham Lake		3.05	22			
Bird Island				1.22	0 50	5
Canton		3.39?	16			
Grand Meadow	11.48	5.00	15	5.00	3 00	15
Maple Plain		2.50	12			
Red Wing		3.19	15-16			
Saint Charles		2.69	15			
Saint Paul				1.30	1 00	15
Sheldon		4.52	15			
Mississippi.						
Agricultural College		2.95	1	1.72	0 30	24
Batesville						
Hattiesburgh		2.58	27	1.53	1 30	27
Hazlehurst						
Logtown		2.95	27			
Louisville		3.50	1	1.53	1 00	24

Table of excessive precipitation—Continued.

State and station.	Monthly rainfall 10 inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall 1 inch, or more, in one hour.		
		Amt.	Day.	Amt.	Time.	Day.
Mississippi—Continued.						
Meridian	Inches.	Inches.		Inches	h. m.	
Ship Island				1.45	1 00	2
Vaiden				1.00	0 40	2
Waynesborough b				1.34	1 00	30
				1.15	1 00	22
Missouri.						
Brunswick				1.15	1 00	
Dadeville		4.25	29			
Dunnegan		3.05	29			
Independence		2.52	1			
Lamar		2.60	29			
Lexington				1.28	0 36	26
Mexico				1.43	0 30	20
Mount Vernon				1.20	0 40	26
Sedalia		2.90	1			
Steelville				1.00	0 50	26
Stellada				1.75	1 20	8
Wheatland		2.67	29			
Montana.						
Havre		2.67	10-11			
Nebraska.						
Fort Robinson	11.91	2.55	4-5			
Do		4.25	15-16			
Valentine		2.72	15-16			
New Hampshire.						
Brookline				1.10	0 30	26
Peterborough				1.16	0 55	17
Wolfborough		2.86	25			
New Jersey.						
Atlantic City		2.79	3	1.75	1 00	30
New York.						
Albany		2.54	27-28			
Alfred Centre				1.10	0 55	5
Arcade		2.57	9			
Bolivar	10.01					
Buffalo		2.67	8-9	1.70	0 59	9
Do				1.40	7 01	22
Geneva				1.03	1 00	5
Hess Road Station		2.53	2-3			
Liberty		3.10	28			
Lowville		3.24	27-28			
Oswego		2.56	27			
Palermo		2.97	27			
Rochester				1.00	1 00	27
Sherman		2.51	8			
North Carolina.						
Columbus	12.72	3.77	4			
Do		2.61	19			
Concord	10.20					
Horse Cove	17.02	4.85	2			
Kitty Hawk		3.00	27-28	1.50	1 30	9
Louisburg		2.82	18	2.81	2 45	18
Raleigh				1.53	1 00	25
Tarborough		3.62	25			
Wadeville		3.20	20			
Washington	11.75					
Weldon				1.17	0 26	25
Willeyton	10.50	2.70	24			
Wilmington		2.62	27-28			
North Dakota.						
Ashley		4.63	10			
Carrington				1.50	0 30	14
Forman		3.50	5			
Gallatin		2.85	10	2.85	2 30	10
Grafton				2.00	2 00	9
Grand Rapids		2.58	5-6			
Jamestown		3.80	10			
Lakota		2.85	11			
Ohio.						
Bement		2.80	2			
Gratiot				1.22	0 16	9
Kenton		2.52	9			
Portsmouth b				1.78	1 00	30
Weymouth		3.36	18-19			
Oklahoma Territory.						
Anadarko				1.51	1 00	24
Buffalo				1.30	1 00	6
Burnett		2.56	29-30			
Guthrie				1.12	1 00	24
Pennsylvania.						
Blooming Grove	13.00	3.20	27			
Canton				1.50	0 30	27
Coopersburgh				1.50	1 00	3
Corry	11.62	5.36	4	5.36	5 00	4
Drifton		2.99	3			
Girardville		3.70	3			
Harrisburg				1.04	0 53	3
Holidaysburgh				1.50	1 00	5
Huntingdon				2.30	2 00	5
Kilmer		2.65	3			
Lancaster		2.55	25			
Le Roy		3.20	27	3.20	2 15	27
Lock No. 4		2.60	8			
Pottstown				1.50	1 00	25
State College				1.44	0 58	27
Swarthmore				1.74	1 00	27
Uniontown				2.35	0 40	4
Wellsborough		2.97	9	2.95	1 45	9
Wilkes Barre	10.55	3.60	1-2			
South Carolina.						
Anderson	11.91	2.80	4			
Do		2.59	9			

Table of excessive precipitation—Continued.

State and station.	Monthly rainfall to inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.		
		Amt.	Day.	Amt.	Time.	Day.
<i>South Carolina—Continued.</i>						
Charleston	Inches.	Inches.		Inches	h. m.	
Greenwood	10.32	2.71	27-28	1.54	1 00	17
Tillers Ferry	10.48	2.58	5			
<i>South Dakota.</i>						
Clark		3.56	9			
Faulkton		3.07	5			
Forest City				1.32	1 00	5
Oelrichs		4.20	15-16			
Travere		5.40	5-6			
Wolsey				1.06	1 00	9
Do				1.50	1 30	16
<i>Tennessee.</i>						
Chattanooga		2.90	20-21	2.43	1 00	21
Columbia		4.00	9	4.00	2 00	9
Hohenwald		2.51	2			
Memphis				1.56	0 50	6
Milan		2.50	1			
Rogersville				1.13	1 00	24
<i>Texas.</i>						
Albany				2.46	1 30	25
Arthur City		2.96	1			
Belton		3.01	†	3.01	2 30	†
Burnet		2.59	6	2.59	1 00	6
Coldwater				1.62	1 30	18-19
College Station				1.51	1 30	†
Corsicana a		2.57	24-25			
Duval				1.65	0 45	26
Eastland		2.50	25			
Hartley				1.34	0 45	28
Huntsville	10.82	4.50	23			
Houston		2.58	22			
Longview		2.65	24			
Orange	18.01	4.36	18			
Do		9.55	22-24			
Palestine		4.66	23-24	4.46	2 55	24
Quannah				2.20	2 00	19
Red River City		3.86	†			
Round Rock		2.60	6	2.60	1 00	6
San Antonio W. B.		2.96	23-24			
San Antonio V. O.		2.55	23			
Silver Falls				1.20	0 55	16
Temple		2.50	25			
<i>Vermont.</i>						
Cornwall				1.27	0 35	26
Enosburgh Falls	11.23					
<i>Virginia.</i>						
Stanardsville				1.06	0 30	7
Staunton		2.83	7	2.83	2 00	7
<i>West Virginia.</i>						
Parkersburgh W. B.				1.00	0 45	7
Romney		2.50	7	2.50	1 30	7
Spencer		2.50	30			
Wheeling a		3.21?	20			
<i>Wisconsin.</i>						
Amberst				2.20	2 05	16
Harvey		2.77	7-8	1.16	0 45	8
Lancaster	12.10					
Meadow Valley		2.58	16			
Medford a		3.50	27			
Medford b		3.57	26-27			
Menomonie		2.87	15-16			
Neillsville	13.24					
Oconomowoc	11.67	2.58	7			
Pepin		2.55	15			
Osceola Mills		3.01	6			
Prairie du Chien	13.53	2.55	16			
Richland Centre	10.20					
Waukesha		2.72	7	2.24	1 00	7
Whitehall		3.60	15			

* 12 days missing.

† May 31 to June 1.

‡ May 31.

Received too late for discussion in June, 1892.

State and station.	Monthly rainfall to inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.		
		Amt.	Day.	Amt.	Time.	Day.
<i>Montana.</i>						
Dearborn Canyon	11.49	6.15	9-11	.....	.....	.....
Do		2.87	21-22	.....	.....	.....
<i>Texas.</i>						
Fort Worth		2.70	5-6	.....	.....	.....
<i>Received too late for publication in May, 1892.</i>						
<i>Kansas.</i>						
Springvale	13.50	.....	.....	.....	.....	.....

MAXIMUM RAINFALL IN ONE HOUR OR LESS.

The following table is a record of the heaviest rainfall during June, 1892, for periods of five and ten minutes and one hour, as reported by regular stations of the Weather Bureau furnished with self-registering gauges:

Station.	Maximum fall in—					
	5 min.	Date.	10 min.	Date.	1 hour.	Date.
	Inch.		Inch.		Inch.	
Atlanta, Ga.	0.32	2	0.60	2	1.07	2
Bismarck, N. Dak.	0.22	10	0.40	10	0.91	10
Boston, Mass.	0.30	25	0.35	25	0.66	17
Buffalo, N. Y.	0.45	9	0.75	9	1.70	9
Chicago, Ill.	0.40	23	0.05	23	1.60	23
Cleveland, Ohio	0.30	23	0.35	23	0.59	3
Denver, Colo.	0.10	4	0.15	4	0.30	4
Detroit, Mich.	0.60	2	1.00	2	2.15	2
Dodge City, Kans.	0.50	15	0.70	15	1.19	16
Duluth, Minn.	0.20	13	0.25	13	0.65	13
Eastport, Me.	0.31	14	0.34	14	0.33	14
Galveston, Tex.	0.18	23	0.26	18	0.55	18
Indianapolis, Ind.	0.27	8	0.38	8	0.60	20
Jacksonville, Fla.	0.27	20	0.43	20	0.88	22
Jupiter, Fla.	0.45	5	0.75	5	1.75	5
Kansas City, Mo.	0.30	26	0.35	26	0.50	26
Key West, Fla.	0.16	13	0.32	13	0.74	13
Marquette, Mich.	0.05	28	0.08	28	0.17	28
Memphis, Tenn.						
Milwaukee, Wis.	0.20	22	0.25	6	0.45	6-7
New Orleans, La.	0.24	16	0.30	23	0.45	15
New York, N. Y.	0.12	14	0.14	14	0.42	14
Norfolk, Va.	0.26	7	0.42	7	0.90	7
Philadelphia, Pa.	0.20	21, 30	0.33	21	0.37	21
Philadelphia Water Works	0.14	30	0.27	30	0.45	30
Pittsburg, Pa.						
Portland, Oregon.	0.05	7	0.10	7	0.10	7
Saint Louis, Mo.	0.20	18	0.31	18	0.64	18
Saint Paul, Minn.	0.70	15	1.00	15	1.30	15
Salt Lake City, Utah.	0.10	10	0.15	10	0.25	10
San Diego, Cal.	0.05	9	0.06	9	0.13	9
San Francisco, Cal. †						
Savannah, Ga.	0.28	7	0.48	7	0.70	7
Tampa, Fla.	0.50	2	0.60	2	1.05	26
Washington, D. C.	0.21	23	0.40	27	0.70	27
Wilmington, N. C.	0.10	28, 29	0.20	28	0.63	29

*Self-register out of order.

† Less than 0.05 in 1 hour.

The following tables show the number of years for which monthly precipitation to equal or exceed 10.00 inches, daily precipitation to equal or exceed 2.50 inches, and hourly precipitation to equal or exceed 1.00 inch has been reported in the several states and territories for June during the last 22 years:

Excessive monthly precipitation.

State.	No. years noted.	State.	No. years noted.
Florida	16	New Jersey	2
Iowa	16	Virginia	2
Texas	13	Maryland	2
Georgia	12	Vermont	2
Louisiana	12	Colorado	1
Missouri	11	Connecticut	1
Illinois	9	Rhode Island	1
Nebraska	9	Washington	1
Alabama	8	Arizona	1
Kansas	8	Arkansas	0
Indiana	8	Delaware	0
North Carolina	8	District of Columbia	0
Minnesota	7	Idaho	0
South Carolina	7	Kentucky	0
New Hampshire	6	Maine	0
Ohio	5	Massachusetts	0
Tennessee	5	Montana	0
New York	5	Nevada	0
Wisconsin	5	New Mexico	0
Michigan	4	California	0
Pennsylvania	4	Oregon	0
Mississippi	3	Utah	0
The Dakotas	3	West Virginia	0
Indian Territory	2	Wyoming	0

Excessive daily precipitation (24 hours).

Texas	19	Maryland	12
Florida	18	North Carolina	12
Illinois	18	Pennsylvania	12
Kansas	17	Tennessee	12
Iowa	16	South Carolina	12
Missouri	16	Indiana	11
Georgia	14	Ohio	11
Nebraska	14	Massachusetts	10
The Dakotas	14	Alabama	10
Michigan	13	Louisiana	10
Minnesota	13	Mississippi	10
New York	13	Virginia	10

Excessive daily precipitation—Continued.

State.	No. years noted.	State.	No. years noted.
Arkansas	9	Delaware	2
Connecticut	7	Rhode Island	2
Indian Territory	6	Idaho	1
New Jersey	6	New Mexico	1
Maine	5	Wyoming	1
Kentucky	5	Arizona	0
Wisconsin	5	District of Columbia	0
Vermont	4	Nevada	0
Montana	4	California	0
New Hampshire	3	Oregon	0
West Virginia	3	Washington	0
Colorado	2	Utah	0

Excessive hourly precipitation.

Kansas	17	New Jersey	4
Texas	16	Kentucky	3
Georgia	14	Maryland	3
Iowa	14	Colorado	2
Florida	13	Connecticut	2
Illinois	13	Maine	2
Michigan	13	Massachusetts	2
Nebraska	12	New Mexico	2
Tennessee	11	Indian Territory	2
Missouri	10	New Hampshire	2
North Carolina	10	West Virginia	2
Pennsylvania	10	Wyoming	2
The Dakotas	10	Arizona	1
Ohio	9	Idaho	1
Virginia	9	Montana	1
Louisiana	8	Vermont	1
Minnesota	8	Delaware	0
South Carolina	8	District of Columbia	0
Indiana	7	Nevada	0
Arkansas	6	California	0
Mississippi	6	Oregon	0
New York	6	Rhode Island	0
Wisconsin	6	Utah	0
Alabama	4	Washington	0

The following tables give exceptionally heavy monthly, daily, and hourly precipitation reported for June during the last 22 years:

Monthly.

Station and state.	Am't.	Year.	Station and state.	Am't.	Year.
	Inches.			Inches.	
Alexandria, La.	36.91	1886	Hypoluxo, Fla.	23.25	1892
Cheneyville, La.	26.59	1886	Sylvan Park, Mo.	21.86	1872
California, Mo.	23.90	1891	Archer, Fla.	20.19	1892

Daily (24 hours).

Station and state.	Amount.	Date.	Station and state.	Amount.	Date.
	Inches.			Inches.	
Alexandria, La.	22.27	16, 1886	Cheneyville, La.	5.90	10, 1889
Point Pleasant, La.	16.55	12-14, 1878	Cameron, La.	5.89	17-18, 1892
Pensacola, Fla.	10.70	29, 1887	Edgard, La.	5.85	23, 1890
Sour Lake, Tex.	9.70	15, 1888	Mattoon, Ill.	5.85	27, 1888
Memphis, Tenn.	9.67	8-9, 1877	Kingman, Kans.	5.75	19, 1890
Orange, Tex.	9.55	22-24, 1892	Somerset, Mass.	5.74	9-10, 1875
Memphis, Tenn.	8.95	7-8, 1877	Helena, Ark.	5.60	9, 1877
Clear Lake, Nebr.	8.75	1, 1875	Plattsmouth, Nebr.	5.60	13-14, 1874
Mobile, Ala.	8.50	26-27, 1888	Greensborough, N. C.	5.60	17, 1876
Readington, N. J.	8.10	25-26, 1884	Cameron, La.	5.57	22, 1892
Cunningham, Kans.	8.00	19-20, 1890	Crowley, La.	5.56	6, 1889
Syracuse, N. Y.	8.00	8, 1876	Plattsmouth, Nebr.	5.52	8-9, 1874
Nashua, Iowa	7.50	14, 1886	Hardeeville, S. C.	5.50	9, 1885
Wellsborough, Pa.	7.45	*1889	Evergreen, Ala.	5.50	27, 1888
Little Rock, Ark.	7.40	28, 1879	Rockford, Iowa	5.50	27, 1875
Colebrook, Conn.	7.40	7-8, 1874	New Orleans, La.	5.47	29-30, 1887
Salisbury, N. C.	7.39	10, 1883	Travere, S. Dak.	5.40	5-6, 1892
Purdy, Tenn.	7.10	14-15, 1876	Caldwell, N. Y.	5.40	25-26, 1884
Salisbury, N. C.	7.10	25, 1885	Aberdeen, Miss.	5.40	21, 1886
Wilmington, N. C.	7.03	30, 1876	Corry, Pa.	5.36	4, 1892
Columbia, Tex.	7.00	17, 1888	Jeannette, La.	5.35	16, 1892
Marmaton, Kans.	6.60	15-16, 1889	Boston, Mass.	5.35	9-10, 1875
New Ulm, Tex.	6.50	17-18, 1888	Sycamore, Ill.	5.33	22-23, 1892
Fort Scott, Kans.	6.45	15-16, 1889	Fort Adams, R. I.	5.30	9-10, 1875
Galveston, Tex.	6.40	17, 1888	Fort Maginnis, Mont.	5.28	20-21, 1888
Archer, Fla.	6.34	27, 1892	Galveston, Tex.	5.27	23-24, 1880
Emilie, La.	6.32	22-23, 1890	Merritts Island, Fla.	5.27	23, 1889
Alexandria, La.	6.31	15, 1886	Saint Marks, Fla.	5.24	9, 1879
Saint Marys, Ga.	6.20	12-13, 1877	Wilmington, N. C.	5.22	2, 1882
Charleston, S. C.	6.16	11-12, 1876	Fort Clark, Tex.	5.20	18-19, 1877
Savannah, Ga.	6.10	26-27, 1887	Franklin, La.	5.20	27, 1892
Cleburne, Tex.	6.04	2, 1884	Marquette, Mich.	5.20	20-21, 1878
Columbia, Tex.	6.00	7-8, 1890	Mascoutah, Ill.	5.20	18, 1892
Logan, Iowa	6.00	29-30, 1878	Yankton, S. Dak.	5.20	30, 1875
Larned, Kans.	6.00	19, 1878	Carthagens, Ohio	5.18	20, 1876
Block Island, R. I.	5.97	9-10, 1881	Raleigh, N. C.	5.18	28-29, 1889
New London, Conn.	5.97	25-26, 1884	Des Moines, Iowa	5.14	19-20, 1881

Excessive daily precipitation—Continued.

Station and state.	Amount.	Date.	Station and state.	Amount.	Date.
Jacksonville, Fla.	5.12	10-11, 1885	Monroe, La.	5.01	5-6, 1890
Savannah, Ga.	5.12	14-15, 1876	Beardstown, Ill.	5.00	21, 1885
Melissa, Tex.	5.10	28, 1878	Grand Meadow, Minn.	5.00	15, 1892
Helena, Ark.	5.10	8, 1877	Marengo, Ind.	5.00	18, 1890
Fort Randall, S. Dak.	5.10	30, 1875	Tannersville, N. Y.	5.00	26-27, 1889
Cadiz, Wis.	5.07	13-14, 1890	Sandwich, Ill.	5.00	8, 1874
Bellefontaine, Ohio.	5.06	5-6, 1877	Danville, Ky.	5.00	17, 1878
Payette, Iowa.	5.04	3-4, 1890	Burlington, Kans.	5.00	13, 1876
Minden, La.	5.02	23, 1892	Ft. Independence, Mass.	5.00	10, 1875
Omaha, Nebr.	5.02	17, 1875			

* May 31-June 1.

One hour and less.

Station and state.	Amount.	Time.	Date.
	Inches.	h. m.	
Cleveland, Ohio	0.47	0 05	3, 1891
Bismarck, N. Dak.	0.40	0 05	19, 1890
Savannah, Ga.	0.40	0 05	9, 1889
Do	0.40	0 05	27, 1889
Jupiter, Fla.	0.40	0 05	19, 1891
Augusta, Ga.	0.37	0 05	27, 1888
Galveston, Tex.	0.35	0 05	7, 1890
New York, N. Y.	0.35	0 05	6, 1890
New Orleans, La.	0.35	0 05	22, 1890
Savannah, Ga.	0.35	0 05	11, 1890
Galveston, Tex.	0.35	0 05	29, 1891
Kansas City, Mo.	0.35	0 05	10, 1891
Cleveland, Ohio	0.30	0 05	10, 1891
Norfolk, Va.	0.30	0 05	13, 1890
Bismarck, N. Dak.	0.30	0 05	14, 1891
Washington, D. C.	0.30	0 05	21, 1891
Wilmington, N. C.	0.30	0 05	8, 1891
Detroit, Mich.	0.30	0 05	16, 1889
Do	0.29	0 05	22, 1891
Do	0.28	0 05	28, 1890
Saint Paul, Minn.	0.26	0 05	23, 1890
New York, N. Y.	0.25	0 05	17, 1889
Jupiter, Fla.	0.25	0 05	3, 1890
Marquette, Mich.	0.25	0 05	27, 1890
Saint Louis, Mo.	0.25	0 05	17, 1890
Washington, D. C.	0.25	0 05	12, 1890
Cincinnati, Ohio	0.25	0 05	3, 1891
Dodge City, Kans.	0.25	0 05	5, 1891
Eastport, Me.	0.25	0 05	24, 1891
Jupiter, Fla.	0.25	0 05	13, 1889
Memphis, Tenn.	0.25	0 05	10, 1891
Do	0.25	0 05	29, 1891
Saint Louis, Mo.	0.25	0 05	16, 1891
Galveston, Tex.	0.70	0 10	7, 1890
New Orleans, La.	0.70	0 10	22, 1890
Savannah, Ga.	0.65	0 10	27, 1889
Bismarck, N. Dak.	0.61	0 10	19, 1890
Cleveland, Ohio	0.61	0 10	3, 1891
Norfolk, Va.	0.60	0 10	18, 1890
Cleveland, Ohio	0.55	0 10	10, 1890
New York, N. Y.	0.55	0 10	6, 1890
Savannah, Ga.	0.55	0 10	11, 1891
Toledo, Ohio	0.50	0 10	13, 1888
Bismarck, N. Dak.	0.55	0 10	14, 1891
Memphis, Tenn.	0.60	0 11	20, 1888
Anna, Ill.	1.19	0 13	20, 1878
Fort Randall, S. Dak.	1.56	0 15	28, 1873
Southington, Conn.	1.45	0 15	29, 1879
Gratiot, Ohio	1.22	0 16	9, 1892
Clarinda, Iowa	1.75	0 20	20, 1889
Allapaha, Ga.	1.70	0 20	20, 1890
Potosi, Wis.	1.50	0 20	14, 1890
Webster, S. Dak.	1.33	0 20	24, 1884
Lynchburgh, Va.	1.02	0 20	15, 1879
Sheldon, Minn.	1.35	0 22	18, 1890
Do	2.07	0 25	23, 1890
Clear Creek, Mont.	2.00	0 25	13, 1879
Denmark, Iowa	2.02	0 30	25, 1879
Boston, Mass.	2.00	0 30	29, 1879
Alpena, Mich.	2.00	0 30	24, 1880
Statesville, N. C. (near).	2.00	0 30	17, 1876
Galveston, Tex.	2.00	0 30	17, 1888
Keswick, Va.	2.00	0 30	3, 1881
Diamond, Ga.	2.00	0 30	21, 1889
Sandusky, Ohio	1.90	0 30	17, 1881
Missoula, Mont.	1.84	0 30	13, 1875
Batesville, Miss.	1.72	0 36	24, 1892
Louisville, Miss.	1.59	0 30	17, 1889
Newton, Iowa	1.55	0 30	26, 1881
Carrington, N. Dak.	1.50	0 30	14, 1892
Canton, Pa.	1.50	0 30	27, 1892
Larrabee, Iowa	1.84	0 31	19, 1892
Jacksonville, Fla.	1.81	0 31	26, 1875
Charlotte, N. C.	2.08	0 34	30, 1889
North Lewisburgh, Ohio	1.60	0 35	27, 1879
Palestine, Tex.	1.96	0 36	3, 1883
Oxanna, Ala.	2.00	0 40	25, 1892
Uniontown, Pa.	2.35	0 40	4, 1892
La Crosse, Wis.	1.37	0 40	21, 1884
Wytheville, Va.	2.70	0 44	25, 1875
Dodge City, Kans.	3.24	0 45	19, 1888
Amana, Iowa	2.17	0 45	19, 1878

One hour and less—Continued.

Station and state.	Amount.	Time.	Date.
	Inches.	h. m.	
Wellsborough, Pa.	2.60	0 50	19, 1882
Cumberland, Md. a	4.64	1 00	4, 1892
Des Moines, Iowa	3.00	1 00	24, 1879
Merritts Island, Fla.	3.00	1 00	23, 1889

SNOW (in inches and tenths).

Mouthly snowfall to equal or exceed 10 was reported in the mountains of Colorado, and at Cisco, in the Sierra Nevada Mountains, Cal. Snow was also reported at points in Nevada, northwestern Wyoming, and in northeastern Colorado. No snowfall was reported east of the Rocky Mountains.

Snowfall was reported as follows: *California*.—Cisco, 10; Emigrant Gap and Summit, 2; Truckee, 1.5. *Colorado*.—Climax, 13; Dillon, 11.5; Breckenridge, 11; Manitou, 5; Moraine, 4.2; Pagoda (near), 4; Red Cliff, 3.5; Yuma, 3; Georgetown and Table Rock, 2; Como (near), 1.2; Jefferson, 0.5; Alma, 0.3; Husted, trace. *Nevada*.—Eureka, 6; Palmetto, 4.5; Austin, 4; Elko and Toano, 3; Belmont, 2; Fenelon, 1. *Wyoming*.—Cheyenne, 8; Fort Yellowstone, 2; Lander, trace.

HAIL.

Description of the more severe hailstorms of the month is given under "Local storms." Hail was reported as follows: 1st, Kentucky, Mississippi, Ohio, Pennsylvania, and Washington. 2d, North Carolina and Ohio. 3d, Alabama, Colorado, Georgia, Pennsylvania, and Virginia. 4th, Colorado, Florida, Kansas, Nebraska, New Mexico, Ohio, Oklahoma, and South Dakota. 5th, Arkansas, Iowa, Nebraska, Oklahoma, and Texas. 6th, Arkansas, Illinois, Kansas, Minnesota, Mississippi, North Carolina, Washington, and Wisconsin. 7th, Arkansas, Florida, Illinois, Iowa, Kansas, Mississippi, Missouri, North Carolina, Ohio, Oregon, Tennessee, Virginia, West Virginia, and Wisconsin. 8th, Arkansas, California, Kansas, Michigan, Missouri, Montana, Nevada, Ohio, South Dakota, Virginia, West Virginia, and Wisconsin. 9th, California, Kentucky, Maryland, Nebraska, Nevada, North Carolina, Ohio, Pennsylvania, South Dakota, and Virginia. 10th, California, Georgia, Nevada, North Carolina, North Dakota, South Dakota, Tennessee, and Utah. 11th, Colorado, Minnesota, Nebraska, North Dakota, and Utah. 12th, Iowa, Kansas, Michigan, Minnesota, Nebraska, Oregon, and Wisconsin. 13th, Illinois, Indiana, Iowa, Kansas, Michigan, Missouri, Nebraska, Nevada, and Wisconsin. 14th, Colorado, Maine, Massachusetts, Michigan, Nevada, New Hampshire, New Jersey, New York, Pennsylvania, South Dakota, and Vermont. 15th, Colorado, Kansas, Minnesota, Nebraska, South Dakota, Utah, and Wisconsin. 16th, Colorado, Illinois, Iowa, New York, Pennsylvania, and Texas. 17th, Colorado, Indiana, Kentucky, Massachusetts, Missouri, New Hampshire, New York, Ohio, and Pennsylvania. 18th, Colorado, Illinois, Missouri, North Carolina, Ohio, South Carolina, South Dakota, and Wyoming. 19th, Iowa, Kansas, and Missouri. 20th, Colorado, Iowa, Kansas, Nebraska, North Carolina, and South Dakota. 21st, Arkansas, Illinois, Michigan, New York, Ohio, South Dakota, and Washington. 22d, Colorado, Illinois, Iowa, Maryland, Ohio, South Dakota, and Wisconsin. 23d, Colorado, Illinois, Iowa, New Jersey, New Mexico, New York, and Ohio. 24th, Colorado, Florida, Kentucky, New Mexico, North Dakota, and Tennessee. 25th, Arizona, Colorado, Georgia, Illinois, New Hampshire, New Mexico, North Carolina, Virginia, and Wyoming. 26th, Arkansas, Missouri, Nebraska, New Mexico, North Carolina, North Dakota, and South Dakota. 27th, Arkansas, Kentucky, Maryland, New Jersey, New York, North Carolina, North Dakota, Ohio, Pennsylvania, South Carolina, South Dakota, and Virginia. 28th, Illinois, Indiana, Iowa, Louisiana, North Carolina, South Dakota, Texas, and Wisconsin. 29th, Arkansas, Colorado, Illinois,

Kansas, Missouri, New York, North Carolina, Oklahoma, Pennsylvania, South Dakota, and Utah. 30th, Colorado, Connecticut, Florida, Georgia, Illinois, Indian Territory, Kentucky, Maryland, Mississippi, Missouri, Nevada, New Jersey, New Mexico, Oklahoma, Tennessee, Utah, Virginia, and West Virginia.

WINDS.

The prevailing winds for June, 1892, are shown on Chart II by arrows flying with the wind. In New England and the middle Atlantic states south to southwest winds were most frequently noted; in the south Atlantic and east Gulf states, the Ohio Valley and Tennessee, the upper Mississippi valley, the middle-eastern slope of the Rocky Mountains, and the middle plateau region they were generally from southeast to southwest; in the west Gulf states and the Missouri Valley, from east to south; over the Florida Peninsula, from the southeast; in the lower lake region, from south to west; in the upper lake region and on the northeast slope of the Rocky Mountains, from northeast to southeast; in the extreme northwest, from north to northeast; on the southeast slope of the Rocky Mountains, from southeast to south; over the southern and northern plateau regions and on the north Pacific coast, from southwest to northwest; on the middle Pacific coast, in the Sacramento Valley, from the southeast, and on the coast, from west to north; and on the south Pacific coast, from west to northwest.

HIGH WINDS.

[In miles per hour.]

Wind velocities of 50 miles, or more, per hour were reported at regular stations of the Weather Bureau as follows: 3d, 56, se., at Amarillo, Tex. 4th, 50, se., at Dodge City, Kans. 6th, 52, nw., at Memphis, Tenn. 9th, 54, s., at Pierre, S. Dak.; 50, sw., at Huron, S. Dak. 10th, 50, s., at Amarillo, Tex.; 56, e., at Bismarck, N. Dak. 13th, 72, nw., at Chicago, Ill. 14th, 60, s., at North Platte, Nebr. 15th, 51, se., at Dodge City, Kans.; 64, sw., at Kearney, Nebr. 16th, 52, s., at Amarillo, Tex. 20th, 51, sw., at Woods Holl, Mass. 22d, 52, nw., at Chicago, Ill. 23d, 51, nw., at Cleveland, Ohio. 28th, 50, sw., at Kitty Hawk and Southport, N. C. 29th, 54, s., at Amarillo, Tex.

LOCAL STORMS.

1st.—At Rochester, N. Y., a thunderstorm was observed in the evening; at Charlotte, N. Y., a house was struck by lightning and burned. At Erie, Pa., several houses were struck by lightning, streams overflowed, and cellars were flooded. A destructive storm was reported in the eastern part of Cabell county, W. Va., in the afternoon. A thunder, wind, and rain storm caused considerable damage in northern Ohio. At Bristol, Ohio, one person was killed by lightning. At Wauseon, Ohio, 0.80 inch of rain fell in 15 minutes, trees were blown down, and a heavy hailstorm was reported east of that place. At University, Miss., a thunderstorm, with high wind and rain, began at 4 p. m. and lasted 40 minutes; 1.00 inch of rain was recorded, hail fell for 10 minutes, and some damage was caused by wind. Severe thunderstorms were reported in other portions of Mississippi. A destructive storm was reported at Belcherville, Tex., at night. An exceptionally heavy rainstorm occurred in the afternoon at Amana, Iowa.

2d.—At Gilbertville, Mass., a house was struck and one man was killed by lightning. A thunderstorm, with heavy rain, was reported at Albany, N. Y., in the afternoon. At Addison, N. Y., a number of buildings were struck and several persons were injured by lightning. A house was struck by lightning at Corning, N. Y. Near South Canisteo, N. Y., a number of sheep were killed and a man was badly injured by lightning. A heavy thunderstorm visited Lackawanna county, Pa., at night. One person was reported killed by lightning near Lumberton, N. C. Severe thunder and rain storms were reported in the afternoon at Columbus, Springfield, Massillon, and near Sandusky, Ohio. Exceptionally heavy rain fell in

southeast Lower Michigan. At Detroit, Mich., great damage was caused to property by flooded streets and sewers.

3d.—Heavy rain and thunderstorms were reported in eastern Pennsylvania. At Hardeeville, S. C., four men were reported killed by lightning. Heavy thunderstorms were reported in Hall and Rutledge counties, Ala.

4th.—A severe thunder, rain, and hail storm occurred at Tampa, Fla., in the evening. McCook, Nebr., was visited by a destructive storm in the afternoon. At Concordia, Kans., a house was struck by lightning. Exceptionally heavy rain fell in Pennsylvania. At Columbus, Pa., 5.36 inches fell in seven hours. At Spartansburgh, Pa., the rainfall exceeded 10.00 inches, and was reported the heaviest noted in that section in 50 years. At Cumberland, Md., 4.64 inches of rain fell from 2.15 to 3.15 p. m.; the west end of the town was partly flooded and much damage was caused to gardens, etc. At Toledo, Ohio, heavy rain fell at intervals, causing some damage, and damage was caused by lightning and high wind.

5th.—At Rochester, N. Y., 5 houses were struck, and one person was severely injured, by lightning. At Alfred Centre, N. Y., a heavy rainstorm caused damage to crops, etc. Very heavy rains caused washouts on railroads near Rapid City, S. Dak. A tornado moving southeast was reported at Cleburne, Tex., at 8 p. m.; 2 persons were injured and buildings were destroyed to the value of about \$8,000.

6th.—Heavy wind and rain storms were reported in east-central Virginia in the afternoon. At Asheville, N. C., a man was killed by lightning. A house was struck by lightning at Dixon, Ill., in the morning. At Williamsville, Ill., one person and 2 horses were killed by lightning. A violent thunderstorm, with heavy rain, occurred in the afternoon at Memphis, Tenn.; 1.56 inch of rain fell in 50 minutes, and the temperature fell from 86° to 67°. At La Crosse, Wis., 2 buildings were struck and one person was shocked by lightning. A heavy rain caused damage in bottom lands about Hillsborough, Wis. A house was struck and one person was injured by lightning near Valley Junction, Wis. A cloudburst was reported at Swingle, Iowa; railroad tracks and bridges, light buildings, and stock were washed away. A destructive storm was reported south of Elkton, S. Dak. A violent thunder and rain storm was reported in the evening at Dallas, Tex.

7th.—At Oak Park, Va., a man and several horses were reported killed by lightning. During a heavy thunderstorm in the afternoon at Cleveland, Ohio, one building was struck, a horse killed, and one man stunned by lightning. A thunderstorm, with exceptionally heavy rain, visited Cincinnati, Ohio, in the morning. Street traffic was suspended for about one-half hour and serious damage was done to streets. In the suburbs heavy rain was attended by hail, which destroyed garden vegetation. Thunderstorms were general over Ohio. At Bloomdale, Ohio, one man was killed and two barns were struck by lightning.

At Findlay, Ohio, 5 buildings and an oil tank were struck by lightning. At Oberlin, Ohio, the rainfall was very heavy and hail was reported. Several buildings were struck by lightning, and one person was killed at Ellsworth, Ohio. One person was killed by lightning at Martinsville, Ill. A heavy wind, rain, and hail storm visited Bowen, Ill., in the afternoon. At Rockford, Ill., several buildings were struck by lightning, basements were flooded by heavy rain, and washouts occurred on railroads. At Davenport, Iowa, a thunderstorm, with heavy rain and some hail, occurred in the afternoon.

At Dubuque, Iowa, heavy rain flooded streets, sewers, and